



ASSESSMENT AND EVALUATION REFORMS IN RESHAPING THE HIGHER EDUCATION INSTITUTES -NEP 2020

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ABSTRACT

NEP 2020 emphasizes the importance of assessment and evaluation as a continuous process in higher education. The University Grants Commission (UGC) has taken various initiatives to promote assessment and evaluation reforms, including the development of learning outcomes-based curricula and the adoption of a semester-based system. Many higher education institutions in India are transitioning from annual exams to a semester-based system, allowing for more frequent and comprehensive assessments. The present paper adopts a qualitative, theoretical research design and objective-wise content analysis to explore various objectives. It explains the role of measurement, assessment and evaluation in the education system, focusing on continuous and comprehensive evaluation. The paper also aims to understand various technology-enhanced assessments, inclusive assessments and emphasize on competency-based assessments such as -PARAKH (Performance Assessment, review and Analysis of Knowledge for holistic development). Additionally it highlights the Choice-Based Credit System (CBCS) and Grading System, explores the Academic Bank of Credits (ABC) digital platform, and discusses the implementation of multi-dimensional 360-degree assessment and Holistic Progress Card (HPC). NEP 2020 seeks to provide a more balanced and thorough implementation of its assessment and evaluation reforms. Incorporating these objectives, higher education institutions can move beyond traditional methods, focusing on continuous and comprehensive evaluation, standard-based grading, competency-based assessments, outcome-based education (OBE), continuous and comprehensive evaluation and use of various technology based assessments to evaluate the performance. The main aspects of assessment and evaluation include a variety of assessment methods, feedback, reflections and an emphasis on Higher-Order thinking skills.

KEYWORDS: Assessment, Evaluation, Higher Education, Reforms

INTRODUCTION

Assessment and evaluation represent a critical shift in education towards measuring competencies that extend beyond traditional academic knowledge. In today's rapidly evolving world, assessing critical thinking, creativity, collaboration, communication, and digital literacy skills is essential (Kotra, 2024¹). Traditional standardized tests are increasingly supplemented with performance-based assessments, portfolios, project evaluations, and peer assessments. These methods aim to gauge student's ability to apply knowledge in real-world contexts, solve complex problems, and work effectively with others (Meylani, 2023²). Additionally, technology plays a pivotal role in enabling timely and formative assessment, providing educators with valuable insights into students' progress and areas for improvement. The evaluation of 21st-century skills ensures that education remains relevant to the demands of the modern world and empowers students to become adaptable, lifelong learners capable of thriving in diverse personal and professional settings. The transformative shift towards outcome-based assessment practices not only aligns with the objectives of NEP 2020 but also addresses the broader goals of preparing students for the challenges of the 21st century. By emphasizing continuous internal evaluation, defining clear outcomes, assessing skills aligned with Bloom's Taxonomy, and prioritizing a statement of skills, HEIs in India

are poised to nurture well-rounded individuals capable of thriving in a rapidly changing world. In conclusion, as HEIs in India embrace these progressive assessment practices, they not only enhance the quality of education but also contribute to the holistic development of students, ultimately fulfilling the aspirations of NEP 2020 and laying the foundation for a brighter future.

Need for Reforms: The National Education Policy (NEP) 2020 significantly shifts change in assessment practices towards formative and competency-based assessments, emphasizing continuous feedback and a holistic understanding of students learning. It aims to move away from high-stakes summative evaluation and towards assessments that promote learning, development, and the evaluation of higher-order skills. The goal is to create a more engaging and personalized learning experience that fosters creativity and critical thinking.

- **Shift from Summative to Formative Assessment:** NEP 2020 emphasizes regular, ongoing assessments throughout the academic year, rather than focusing solely on end-of-term exams.
- **Focus on "Assessment for Learning":** Assessments are used to inform teaching and learning, providing continuous feedback to students and teachers to improve the learning process.

- **Competency-Based Assessments:** The policy emphasizes assessing student's ability to apply knowledge and skills in real-world situations, rather than simply rote memorization.
- **Continuous monitoring and improvement:** The assessment process should be used to continuously monitor students' progress and identify areas for improvement in both teaching and learning.
- **Emphasis on Higher-Order Skills:** Assessments should evaluate critical thinking, analysis, and problem-solving, and creativity, not just basic recall.
- **Holistic and Multi-dimensional Report Cards:** Report cards should provide a comprehensive view of the student's progress in all domains, including self-assessment, peer-assessment, and teacher assessment.
- **Teacher capacity building:** NEP 2020 emphasizes the need for training teachers on new assessment methods and techniques, including "assessment as learning" and "assessment for learning".
- **Use of Diverse Assessment Tools:** NEP 2020 encourages the use of various assessment methods, such as quizzes, projects, presentations, and observations, to provide a more nuanced understanding of student learning.
- **Reduce Exam Pressure:** The policy aims to alleviate the stress associated with high-stakes exams focusing on ongoing assessments and reducing the emphasis on grades.
- **Technology Integration:** NEP 2020 encourages the use of technology in assessment, enabling more adaptive and personalized evaluation methods.

Objectives: Continuous Assessment and Evaluation reforms in higher education focus on transitioning from traditional, high-stakes testing to more comprehensive and continuous assessment methods that align with learning outcomes and 21st-century skills. These reforms aim to foster a more holistic and individualized learning experience, promoting critical thinking, problem-solving, and ethical adherence in Higher Education Institutes. NEP 2020 seeks to provide a more balanced and thorough evaluation process that more accurately represents the student's general abilities and readiness for the challenges of the 21st century in HEIs by incorporating these objectives into the assessment and evaluation reforms in higher education.

- To explain the role of Measurement, Assessment and Evaluation in the Education System.
- To focus on Continuous and Comprehensive Evaluation.
- To understand the various Technology Enhanced Assessments and Inclusive Assessments.
- To highlight the Choice-Based Credit System (CBCS) & Grading System.
- To emphasize Competency Based Assessments -PARAKH (Performance Assessment, Review and Analysis of Knowledge for Holistic Development).
- To explore the Academic Bank of Credits (ABC) digital platform.
- To focus on multi-dimensional 360-degree assessment and Holistic Progress Card (HPC).
- To explain the implementation strategies for NEP recommendations on Assessment and Examination
- To focus on the NEP 2020 challenges in implementing its assessment and evaluation reforms.

METHODOLOGY

The present paper is a qualitative, theoretical research design and objective-wise content analysis proceeded with the discussion and interpretation is done in this study. Procedure: a) Designing and deciding the content, b) Selection of objective for each content unit for analysis c) Selection of the objectives-content units for designing, d) Analyzing and Interpretation.

OBJECTIVE- WISE ANALYSIS

Objective 1: To explain the role of Measurement, Assessment and Evaluation in the Education System

Measurement focuses on quantifying students learning using tools like tests, while assessment gathers broader information, both formally and informally. Evaluation uses this data to make judgments about the effectiveness of teaching and learning, and to guide future actions. They help educators understand students' progress, identify areas for improvement, and ensure accountability within the educational system. Measurement is the quantitative process of assigning values to traits, while assessment is the gathering and interpretation of data to improve learning, and evaluation involves judging the value and effectiveness of learning. Measurement, assessment, and evaluation are crucial for a successful education system, providing insights into students learning, informing instruction, and driving improvements in teaching and learning practices. Their role in education system:

1. Measuring Students' Progress and Performance:

- **Measurement:** Provides a numerical representation of student knowledge, skills, and abilities. This data can be used to track individual student progress and identify areas where they may need additional support.
- **Assessment:** This goes beyond just numerical scores and provides a broader understanding of student learning, including their strengths, weaknesses, and how they approach learning. Assessment can be formative (during instruction) or summative (at the end of a unit).
- **Evaluation:** Helps educators make judgments about the overall effectiveness of teaching and learning, including identifying areas for improvement in curriculum, instruction, and student performance.

2. Improving Teaching and Learning:

- **Assessment:** Provides valuable feedback to students and teachers, helping them to identify areas where learning can be improved. This feedback can be used to adjust instruction and learning activities to meet the student's needs.
- **Evaluation:** Allows educators to reflect on their teaching practices and identify trends that may be impacting students learning. This information can be used to make data-driven decisions about curriculum development and instructional strategies.

3. Ensuring Accountability and Supporting Decision-Making:

- **Assessment and Evaluation:** Provides basis for making informed decisions about student's placement, grading, and advancement. They also help schools to demonstrate

accountability for student's outcomes.

- **Data Collection:** Measurement provides the data necessary to track students' progress and evaluate the effectiveness of educational programs. This data can be used to inform policy decisions and resource allocation.

4. Motivating Students and Promoting Learning:

- **Feedback:** Assessment and evaluation provide students with feedback on their progress, which can be motivating and encourage them to continue learning.
- **Self-Regulation:** By understanding their strengths and weaknesses, students can develop self-regulation strategies to improve their learning.

5. Facilitating Research: Data collected through measurement and assessment can be used to conduct research on effective teaching practices and improve educational outcomes.

Measurement, Assessment, and Evaluation are interconnected processes that are essential for improving student learning, informing teaching practices, and ensuring accountability within the educational system. By using these tools effectively, educators can create a more effective and engaging learning environment for all students.

Objective 2: To focus on Continuous and Comprehensive Evaluation (CCE)

Continuous and Comprehensive Evaluation (CCE) in higher education focus on assessing students learning and development beyond just final exams, using a variety of formative and summative assessments throughout the semester or year. It emphasizes continuous feedback and the holistic development of students.

1. **Continuous Assessment:** Unlike traditional end-of-semester exams, CCE involves ongoing evaluation through various methods like quizzes, assignments, presentations, and participation.
2. **Comprehensive Evaluation:** CCE aims to assess not only academic knowledge but also skills, attitudes, and overall development of students.
3. **Formative assessments:** provide feedback during the learning process to guide students learning and improve teaching and Summative assessments: evaluate overall learning at the end of a period.
4. **Holistic Development:** CCE recognizes that students develop not only academically but also in areas like social skills, emotional intelligence, and physical development.
5. **Reduce Exam Pressure:** By spreading assessments throughout the year, CCE can alleviate the pressure of high-stakes exams and reduce stress among students.
6. **Personalized Learning:** CCE allows for personalized feedback and support based on individual student needs and learning styles.
7. **Teacher Feedback and Improvement:** Continuous assessment provides valuable feedback for teachers to adjust their teaching strategies and better support student learning.

Benefits of CCE in higher education: Improve the learning outcomes, enhance the engagement of continuous assessments that increase students engagement and motivation in the learning process, assessment data can be used to inform teaching practices and make data-driven decisions and continuous feedback can foster better relationships between teachers and students. **Implementation challenges:** Time and Resource Constraints, teacher training and standardized assessment tools that are suitable for CCE could be challenging.

CCE facilitates the all-round development of students, provides equal opportunities for all students to display their individual potential, and helps teachers realize the effectiveness of the teaching learning process. While continuous and comprehensive evaluation techniques have proven beneficial for student's development, they have been criticized for the time required for evaluation and reevaluation. Following could be some potential ways to adopt and implement CCE.

| s.no. | Tools for CCE | Strategy |
|-------|-----------------------------------|---|
| 1 | Quizzes | Online quizzes can be created using platforms like Google Forms which offer quick, auto-graded assessments. In-class quizzes can be conducted as short, paper-based evaluations at the beginning or end of a class session (Salas-Morera et al. 2012). |
| 2 | Self-Assessments and Exit Tickets | Encouraging students to review each other's work using a rubric provided by the teacher fosters collaborative learning and develops critical thinking skills (Carlos et al. 2014). |
| 3 | Mini Projects | Assigning small-scale projects that can be completed within a short time frame allows students to integrate multiple skills and concepts effectively (Sonar, 2021). |
| 4 | Flashcards | Utilize digital or physical flashcards for quick reviews and self-assessment. Tools for digital flashcards or traditional physical flashcards are effective for reinforcing learning and assessing understanding (Golding et al. 2012). |
| 5 | Classroom Polls | Conduct real-time polls using tools like Poll Everywhere to gauge student understanding of the material covered. These tools engage students actively and provide immediate feedback to the teacher on their comprehension of the content (Stover et al. 2015). |
| 6 | Journal Entries | Ask students to maintain a learning journal where they regularly write reflections on what they have learned and areas they find challenging. This practice encourages self-reflection and helps students track their progress over time (Walker, 2006). |

| | | |
|----|------------------------|---|
| 7 | Interactive Activities | Use activities like “Think-Pair-Share” where students think about a question, discuss with a partner, and then share with the class. This can serve as a quick assessment of understanding (Hanna, 2015). |
| 8 | Socratic Seminars | Conduct structured discussions where students engage in dialogue about specific topics, demonstrating their understanding and critical thinking skills. This method fosters deeper comprehension and allows students to articulate their thoughts effectively through meaningful discourse (Castellanos-Reyes, 2021). |
| 9 | One Minute Papers | At the end of a class, students write a summary of what they learned or respond to a specific question related to the lesson helps reinforce their understanding and allows for immediate assessment of comprehension (Stead, 2005). |
| 10 | Concept Maps | Assigning students to create concept maps that visually represent their understanding of a topic is an effective way to assess their grasp of the material. Concept maps allow students to organize and connect key concepts, demonstrating their comprehension and the relationships between different ideas (Baliga et al. 2021). |
| 11 | One Minute Papers | At the end of a class, students write a summary of what they learned or respond to a specific question related to the lesson helps reinforce their understanding and allows for immediate assessment of comprehension (Stead, 2005). |
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Fig: Showing different tools for Continuous and Comprehensive Evaluation (CCE)

Objective 3: To understand the various Technology Enhanced Assessments and Inclusive Assessments

Recent advancements in technology have revolutionized classroom-based assessment practices by integrating cognitive constructs, assessment functionality, and automation. Technologies such as artificial intelligence (AI), learning analytics, and virtual reality (VR) play crucial roles: simulating real-world problems, capturing complex performances, analyzing data efficiently, visualizing results for actionable insights, transforming scores into meaningful information, and reducing manual effort. These innovations enhance assessment precision, support personalized learning strategies,

and empower educators with valuable tools to optimize student outcomes effectively (Zhai and Wiebe, 2023).

3.1. Digital Assessments: Online Quizzes and Exams

Digital assessments encompass online quizzes and exams, as well as other forms of electronic assessments, using technology to deliver assessments via digital devices. These assessments can range from simple quizzes to complex exams, and include features like automated grading, secure test delivery, and real-time reporting. These platforms enable the creation of interactive quizzes that engage students actively with course content while providing immediate feedback on their responses (España-Delgado, 2023). The automated grading functionality of tools like Google Forms ensures consistency and efficiency in assessment processes, allowing educators to focus more on interpreting results and adjusting instructional strategies based on individual performance. Moreover, the customization features of these platforms empower educators to tailor assessments to specific learning objectives, thereby promoting a more targeted evaluation of student competencies (Valentine et al. 2023). Digital assessments provide a versatile and efficient way to evaluate students learning through various online quizzes and exams, offering numerous advantages over traditional paper-based methods.

Types of Digital Assessments:

- **Quizzes:** Short, often multiple-choice tests used for formative assessment and to gauge student understanding.
- **Exams:** More in-depth assessments, often with various question types, used for summative evaluation and grading.
- **Online Quizzes and Exams:** A broad category encompassing various forms of electronic assessments, including those with timed limits and proctoring.
- **Mock Tests:** Practice exams that mimic real exam conditions, allowing students to familiarize themselves with the format and content.
- **Proctored Examinations:** Online exams that are monitored by a proctor, either remotely or in-person, to ensure test integrity.

Benefits of Digital Assessments:

- **Flexibility and Accessibility:** Students can take assessments from anywhere with an internet connection.
- **Reduce Administrative Burden:** Online assessments streamline the process of creating, managing, and grading exams.
- **Faster Results:** Automated grading and real-time reporting allows for quicker feedback to students.
- **Increased Security:** Features like secure browsers and remote proctoring helps to prevent cheating and maintain test integrity.
- **Scalability and Cost-Effectiveness:** Digital assessments can be easily scaled up to accommodate large number of students and are often more cost-effective than traditional paper-based exams.

Examples of Digital Assessment Platforms: Kahoot, Quizlet, ClassMarker, Exam.net, TestInvite, TCS iON, Mercer Mettl, ProProfs, Inspira, Testmoz, and Quiz Game.

3.2. E-Portfolios: Platforms for Showcasing Student Work

E-portfolios are online platforms where students can showcase their work, skills, and learning journey. They are a valuable tool for demonstrating learning, reflecting on progress, and sharing accomplishments.

- **Digital Showcase:** E-portfolios provide a dynamic and multimedia way for students to present their work, including documents, images, videos, and audio recordings.
- **Reflection and Learning:** They encourage students to reflect on their learning process, identify areas of growth, and track their progress over time.
- **Assessment and Evaluation:** E-portfolios can be used as a form of assessment, allowing educators to evaluate students work and provide feedback.
- **Personalized Learning Space:** They offer students a personal learning space to collect, curate, and share their work, fostering a sense of ownership and control over their learning.
- **Sharing and Collaboration:** E-portfolios facilitate sharing and collaboration among students, teachers, and other stakeholders.
- **Professional Development:** They can be used as a resume and professional portfolio, showcasing skills and achievements to the potential employers.

Examples of E-Portfolio Platforms: 1. University-supported platforms: Mahara is a free and open-source e-portfolio platform that is used by various universities and educational institutions, PebblePad (University of Melbourne) is a commercial e-portfolio platform that is widely used in higher education and offers features for assessment, feedback, and reflection and Digication (Cornell University) are examples of university-supported platforms. 2. General-purpose platforms: Wix and Weebly can be used to create versatile portfolios. 3. Educational platforms: Edutopia and Google Sites offer tools for creating digital portfolios and facilitating sharing. 4. Other platforms: FolioSpaces, PortfolioGen, and Pathbrite are also popular choices.

Types of E-Portfolios: E-portfolios offer a powerful way to engage students in their learning, demonstrate their achievements, and prepare them for future academic and professional pursuits

- **Showcase Portfolios:** These highlight the student's best work and achievements.
- **Developmental Portfolios:** These track a student's learning progress and growth over time.
- **Learning Portfolios:** Document the student's learning process and progression over time that include self-assessment, feedback, and reflections.
- **Assessment Portfolios:** Collect evidence to assess learning outcomes and program evaluations and used for accreditation and program evaluation purposes.
- **Work-Integrated Learning Portfolios:** Focus on skills and experiences gained through work placements or internships.
- **Academic portfolios:** Focus on academic achievements and coursework.
- **Career portfolios:** Highlight professional skills and

experience for job applications.

These platforms facilitate the collection and presentation of student's artifacts, reflections, and achievements in a digital format, providing a holistic view of their educational journey (Zhang and Tur, 2022). Educators can use e-Portfolios to assess not only the quality of students' work but also their ability to critically reflect on learning experiences and demonstrate proficiency in key competencies (Fitch et al. 2008). By integrating multimedia elements such as videos, images, and documents, students can effectively showcase their skills and accomplishments, thereby enhancing the authenticity and depth of assessment (Musbau et al. 2020).

3.3. Learning Management Systems (LMS): Centralized Platforms for Assessment

Learning Management Systems (LMS) are software applications or web-based technologies that act as centralized platforms for managing and delivering online learning, assessments, and training. They enable organizations to plan, implement, and assess learning processes, including creating and managing courses, assigning lessons, monitoring progress, and analyzing performance. LMS platforms are widely used in educational institutions, corporations, and other organizations where training and learning are essential.

- **Content Management:** LMS platforms facilitate the creation, storage, and organization of learning materials, including text, images, videos, and interactive simulations.
- **User Management:** LMS allows administrators to manage user accounts, enroll learners in courses, and control access permissions.
- **Assessment and Evaluation:** LMS can host various assessment tools, including quizzes, assignments, and exams, and track learner progress and performance.
- **Communication:** LMS provides communication tools for learners and instructors, such as forums, message boards, and video conferencing.
- **Reporting and Analytics:** LMS generates reports and analytics on learner performance, course completion rates, and overall training effectiveness.

Benefits of Using an LMS:

- **Improved Learning Experience:** LMS provides a centralized and organized learning environment, making it easier for learners to access materials and track their progress.
- **Enhanced Efficiency:** LMS automates many administrative tasks, such as user enrollment, grade tracking, and reporting, freeing up instructors and administrators to focus on teaching and learning.
- **Cost Savings:** LMS can reduce training costs by streamlining the learning process, eliminating paper-based materials, and enabling remote learning.
- **Increased Flexibility:** LMS allows learners to access training materials anytime, anywhere, making it easier for them to learn at their own pace and on their own schedule.
- **Measurable Results:** LMS provides data and analytics that can be used to assess the effectiveness of training programs and identify areas for improvement.

Examples of LMS Platforms: 1. Moodle: A popular open-source LMS used in educational institutions and corporate training. 2. Blackboard: A widely used LMS platform for higher education and corporate training. 3. Canvas: An LMS platform known for its user-friendly interface and robust features. 4. Absorb LMS: A corporate LMS platform with features for creating, delivering, and managing training programs. 5. iSpring Learn: A cloud-based LMS for online corporate training that identifies skill gaps and implements e-learning effectively. 6. Google Classroom: A free LMS platform for K-12 and higher education, with features for assignments, communication, and grade tracking.

Learning Management Systems provide a centralized platform for managing and delivering online learning, assessments, and training, offering numerous benefits for organizations and educational institutions. LMSs like Moodle, Canvas, and Blackboard serve as centralized hubs for managing and executing various assessment activities in educational settings. These platforms streamline assignment distribution, submission, grading, and feedback processes, offering educators comprehensive tools for monitoring student progress and performance (Khatser and Khatser, 2022). Through LMSs, instructors can create and administer assessments, track student engagement with course materials, and provide timely feedback to enhance learning outcomes. Communication tools embedded within these platforms facilitate seamless interaction between educators and students, fostering a collaborative learning environment that supports continuous assessment and feedback loops (Bradley, 2021).

3.4. AI and Analytics in Assessment: Enhancing Efficiency and Personalization

AI and analytics are transforming educational assessments by enhancing efficiency and personalization. AI-driven analytics systems can automate grading, provide instant feedback, and adapt assessments to individual learning styles, ultimately improving student's engagement and learning outcomes. Artificial intelligence (AI) and learning analytics technologies are revolutionizing assessment practices by automating routine tasks and providing actionable insights into student's performance. Automated essay scoring systems leverage AI algorithms to evaluate written responses objectively, ensuring consistency and scalability in grading processes (Gonzalez Calatayud et al. 2021)⁹. Adaptive learning systems like Knewton personalize learning pathways based on individual student data, optimizing educational experiences by targeting specific learning needs and preferences. Learning analytics dashboards analyze vast datasets to identify trends, patterns, and areas requiring intervention, enabling educators to make data-driven decisions that enhance instructional effectiveness and student's success (Tumaini et al. 2021)¹⁰.

- **Automated Grading:** AI algorithms can automatically grade multiple-choice, short-answer, and even essay questions, reducing the workload for educators and ensuring faster evaluations.
- **Instant Feedback:** AI can provide immediate feedback to students on their performance, allowing them to correct mistakes and learn from them in real-time.

- **Personalized Learning Pathways:** By analyzing student's data and identifying learning patterns, AI can recommend tailored learning pathways and resources, optimizing the learning process.

Personalized Learning like:

- **Adaptive Assessments:** AI algorithms can adjust the difficulty and content of assessments based on the student's individual performance, ensuring that they are challenged appropriately.
- **Personalized Feedback:** AI can provide personalized feedback to students, highlighting their strengths and weaknesses and recommending areas for improvement.
- **Diverse Learning Styles:** AI can adapt assessments to accommodate diverse learning styles, making education more accessible and inclusive.
- **Predictive Analytics:** AI can analyze historical student's data to predict future learning outcomes and identify students who may need additional support.

Benefits for Students:

- **Improved Engagement:** Personalized assessments and feedback can enhance student's engagement and motivation.
- **Enhanced Comprehension:** AI-driven assessments can provide students with a deeper understanding of the subject matter.
- **Increased Self-Awareness:** By providing personalized feedback, AI can help students understand their own learning strengths and weaknesses.
- **Greater Flexibility:** Adaptive learning platforms and AI-driven assessments can provide students with greater flexibility in how they learn.

Benefits for Educators:

- **Reduce Workload:** AI can automate many tasks that educators currently perform, freeing up their time to focus on teaching and students support.
- **Data-Driven Insights:** AI can provide educators with valuable data-driven insights into students' performance, allowing them to make more informed decisions about instruction and curriculum.
- **Improved Teaching Effectiveness:** By adapting AI teaching methods to individual student needs, educators can improve their teaching effectiveness and students outcomes.

Challenges and Considerations:

- **Data Privacy:** AI systems rely on student's data, raising concerns about data privacy and security.
- **Algorithmic Bias:** AI algorithms can reflect and perpetuate existing biases in education, leading to unfair or inequitable assessments.
- **Digital Divide:** The digital divide can create a barrier to access for some students, making it difficult to effectively integrate AI into education.
- **Teacher Training:** Educators need to be trained on how to use AI-driven assessments and analytics effectively.

Inclusive Assessments: NEP 2020 promotes a more inclusive and holistic assessment system that moves away from traditional, high-stakes exams. Improving the equity in higher education, assessment emphasizes 'inclusive assessment' that aims to proactively accommodate all students' capabilities. This approach ensures fair and effective assessment methods that enable every student to demonstrate their full potential in knowledge, understanding, and skills. It addresses persistent challenges in current assessment practices and advocates for 'assessment for social justice', aiming for fair outcomes beyond procedural equality. 'Assessment for inclusion' further emphasizes accommodating diverse student strengths to promote equitable and inclusive higher education assessment practices (Tai et al. 2022).

Inclusive assessment ensures that all students have opportunities to demonstrate their learning in ways that are appropriate for their individual needs and learning styles and aims to reduce the bias and barriers that can prevent students from accessing quality education. The policy promotes a learning environment where all students feel valued and supported, regardless of their background or learning style. Inclusive assessment practices aim to accommodate students with disabilities, international students, and those from linguistically diverse backgrounds in higher education. Research indicates limited exploration into how these practices directly impact student learning, with few studies dedicated to this area. Strategies to enhance inclusivity include offering student's choices in assessment methods, adopting programmatic assessment approaches, and involving students in the co-design of assessments. Despite these efforts, widespread implementation of universal design for assessment remains uncommon due to challenges in theoretical development and operationalization. Traditional assessment norms and assumptions often hinder broader adoption of inclusive assessment methods in educational settings (Tai et al. 2021).

Objective 4: To highlight the Choice-Based Credit System (CBCS) & Grading System

The NEP 2020 introduced several innovative changes to grading and credit systems, including a flexible choice-based credit system (CBCS), a 10-point grading system, and the Academic Bank of Credit (ABC). The aim is to enhance students learning, improve employability, and foster a more flexible and dynamic education system.

- **Choice-Based Credit System (CBCS):** The Choice Based Credit System (CBCS) is a flexible learning framework that allows students to select courses from a prescribed list, including core, elective, and skill-based options. This system aims to give students more control over their education by offering them the opportunity to customize their learning paths based on their interests and career goals. 10-Point Grading System was introduced to ensure uniformity in grading and facilitate student's mobility. The system uses letter grades (O, A+, A, B+, B, C, P, F, Ab) to represent students' performance, CGPA is calculated by taking the weighted average of grade points from all courses taken during the student's program. Each letter grade is assigned a corresponding grade point value, which

is then used to calculate the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).

- **Integration of Education, Skilling, and Work Experience:** NEP 2020 emphasizes the integration of academic learning with practical skills and work experience. This is reflected in the credit rating framework, which aims to incorporate aspects beyond traditional academic education. The CBCS and ABC encourage a multidisciplinary approach to learning, allowing students to explore different subjects and develop a wider range of skills. NEP 2020 promotes flexibility in course selection, allowing students to tailor their education according to their individual interests and career goals.
- **Multiple Entry and Exit Options:** The new policy provides multiple entry and exit points for students, allowing them to choose to pursue higher education or vocational training based on their individual needs and aspirations. The integration of soft skills and work experience aims to enhance students' employability and prepare them for the demands of the modern workforce.

Objective 5: To emphasize Competency-based assessments -PARAKH (Performance Assessment, Review and Analysis of Knowledge for Holistic Development)

Competency-based assessments (CBA) provide a comprehensive understanding of a learner's proficiency in a specific field, promoting quality education and better employability. CBA provides continuous support and multiple opportunities, focusing on holistic development. Creating a robust support system that ensures learners are prepared for assessments on demand (Akhil Bhartiya Shiksha Samagam, 2023).

PARAKH is a national initiative taken by the NCERT (National Council of Educational Research and Training) to transform assessment in education, including higher education. It focuses on competency-based learning and holistic development, aiming to bridge the gap between academics and industry. While PARAKH is primarily focused on school education, its principles and framework can be adapted and applied in higher education settings. The AICTE (All India Council for Technical Education) also uses PARAKH for students learning assessment, focusing on skills and 21st-century competencies.

The Role of PARAKH:

National Assessment Centre/PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development) is established with the basic objectives of setting norms, standards, and guidelines for students assessment, and evaluation in education and provide a framework for developing and implementing assessments in higher education in India, guiding the State Achievement Survey (SAS) and undertaking the National Achievement Survey (NAS), monitoring learning outcomes.

PARAKH provides tools and frameworks for analyzing assessment data and generating reports. This data can be used to identify strengths and weaknesses in students learning and inform improvements in teaching and curriculum.

PARAKH aims to address disparities in assessment practices and ensure that all students, regardless of their background or institution, are assessed fairly and effectively. This is particularly important in higher education, where students from diverse backgrounds may have different learning needs and experiences.

Objective 6: To explore the Academic Bank of Credits (ABC) digital platform

“ABCD” often refers to Academic Bank of Credits, a digital platform for storing and transferring credits earned by students across different higher education institutions. This system, introduced as part of the National Education Policy 2020, aims to increase flexibility and mobility in higher education. It enables students to accumulate credits from various sources and use them towards a degree.

The Academic Bank of Credits (ABC) is a digital platform that allows students to earn, store, and transfer academic credits from different educational institutions. It is integrated with the National Academic Depository (NAD) and the DigiLocker. The primary purpose of ABC is to provide students with greater flexibility and control over their educational journey. It allows students to:

1. **Transfer Credits:** Students can transfer credits earned at one institution to another, potentially leading to a more personalized and interdisciplinary learning experience.
2. **Accumulate Credits:** Students can accumulate credits from different institutions and use them towards a degree, even if earned over different semesters or years.
3. **Pause or Drop Education:** ABC allows students to pause or drop out without losing their accumulated credits.
4. **Rejoin Education:** Students can rejoin their studies at the same or a different institution, using their accumulated credits.
5. **Integration with APAAR ID:** ABC is integrated with the APAAR ID, which ensures secure recording and management of academic and skill-based achievements.

ABCD Report Card: The “ABC” in “ABCD report card” in higher education likely refers to the Academic Bank of Credits (ABC), an initiative by the Ministry of Education initiative to provide a system for recognizing and verifying credits earned by students in various educational institutions. The report card would be a record of these earned credits, potentially downloadable as a PDF. To download an ABC report card if available, one needs to access the ABC portal or a similar platform associated with the institution. The specific process may vary depending on the institution and the type of report card available.

ABCD Framework in Higher Education: The ABCD analysis framework can be applied to various aspects of higher education, such as curriculum design, teaching methodologies, and institutional development. It is also used to evaluate the performance of a system or concept. This framework involves:

- **Advantages:** The positive aspects of the system or concept.
- **Benefits:** The advantages that result from using the system

or concept.

- **Constraints:** The limitations or difficulties associated with the system or concept.
- **Disadvantages:** The negative aspects of the system or concept.

ABCD as a Community Development Framework: The acronym ABCD can also stand for Asset-Based Community Development, a framework that emphasizes the strengths and resources within a community to drive change. In higher education, this framework can be used to:

- **Identify Assets:** Identify the resources and strengths within the university, such as faculty expertise, administrative support, and student organizations.
- **Address Challenges:** Use the identified assets to address specific challenges and implement solutions.
- **Facilitate Change:** Promote long-term, bottom-up change efforts within the university.

Objective 7: To focus on multi-dimensional 360-degree assessment and Holistic Progress Card (HPC)

A 360-degree assessment in the context of the National Education Policy (NEP) 2020 refers to a holistic and comprehensive evaluation of a student’s or teacher’s performance, incorporating feedback from various sources to provide a well-rounded view. The NEP 2020 emphasizes a shift towards holistic development and a learner-centric approach that aligns with the principles of 360-degree assessment. This type of assessment aims to go beyond traditional evaluation methods by considering the individual’s strengths, areas of interest, and potential for improvement, acknowledging and celebrating their uniqueness. A 360-degree assessment in education is a comprehensive evaluation that gathers feedback from multiple sources to provide a holistic view of a student’s or teacher’s performance. 360-degree assessment focuses on the principles and practices of holistic assessment as envisioned in the National Education Policy 2020.

- **Holistic Development:** NEP 2020 emphasizes a holistic approach to education, which includes cognitive, emotional, social, and physical development. 360-degree assessment helps evaluate these different aspects of a student’s development.
- **Multiple Perspectives:** Feedback is gathered from multiple sources, such as teachers, peers, parents, and even the individual being assessed themselves, providing a more complete picture of their performance.
- **Dynamic and Continuous Process:** 360-degree assessment is not a one-time event but rather a dynamic and continuous process that helps students and teachers track their progress and identify areas for improvement.
- **Flexibility and Variety:** NEP 2020 encourages the use of various assessment tools, including objective, subjective, visual, and other flexible formats to assess all aspects of development.
- **Individualized Approach:** 360-degree assessment acknowledges the unique characteristics and needs of each learner, promoting a more personalized approach to learning.
- **Emphasis on Strengths and Growth:** The focus is on

identifying strengths and areas for growth, rather than simply assigning grades or labels.

Holistic Progress Card (HPC): A Holistic Progress Card (HPC) in higher education is a comprehensive assessment tool that moves beyond traditional grading to evaluate the student's progress across various domains, including cognitive, affective, socio-emotional, and psychomotor development. It provides a 360-degree view of a student's growth, encompassing not only academic achievements but also their social-emotional, creative, and vocational competencies. HPCs are currently more prevalent in school education, their principles and framework can be adapted for higher education institutions. This might involve: Developing customized HPCs for different disciplines, integrating HPCs into existing assessment systems, training faculty and staff on HPC implementation and Using HPC's to inform curriculum development.

HPC directly aligns with the National Education Policy (NEP) 2020's vision fostering self-awareness and self-esteem in students by providing clear communication of both strengths and areas for improvement. It also underscores the importance of evaluating higher-order skills like analysis, critical thinking, and conceptual clarity. The HPC directly addresses the NCFSE which emphasizes these points by incorporating diverse assessment methods that go beyond rote memorization. Embracing National Curriculum Framework for School Education, NCFSE advocates for a systematic approach to progress evaluation, including methods like peer and self-assessment. It also recommends classroom activities as a means to assess core competencies. The HPC effectively adopts these suggestions by incorporating self and peer evaluations alongside with engaging classroom activities that assess diverse skills and knowledge application.

Advantages:

- HPC transcends the limitations of numerical grades. It presents deeper, providing descriptive and analytical evaluations that encompass a student's academic achievements alongside the development of crucial life skills. This broader picture allows for a more nuanced understanding of a student's progress.
- HPC fosters a shift from summative assessments (focusing on a single point in time) to formative assessments (providing ongoing feedback throughout the learning process). This allows for continuous improvement and promotes competency-based evaluation, focusing on mastery of skills rather than just memorization of facts.
- HPC equips both teachers and parents with valuable insights into each student's learning journey. This comprehensive information allows them to provide more targeted support, fostering a collaborative environment that fosters overall student's development.

Objective 8: To explain the Implementation Strategies for NEP recommendations on Assessment and Examination.

To implement NEP 2020 recommendations on assessment and examinations, a multi-pronged strategy is needed, focusing on creating new assessment patterns, building capacity for teachers

and evaluators, and developing digital tracking systems. This involves transforming assessment from a rote-learning focus to a more holistic, learner-centric approach that emphasizes higher-order thinking skills and continuous evaluation. By implementing these strategies, NEP 2020 aims to create a more effective and relevant assessment system that supports student's development and prepares them for the challenges of the 21st century.

1. Developing New Assessment Patterns:

- **Formative and Summative Assessments:** NEP 2020 emphasizes both formative (ongoing) and summative (end-of-unit) assessments to provide a comprehensive understanding of students learning.
- **Competency-Based Assessments:** Assessment should focus on evaluating students' ability to apply knowledge and skills in real-world contexts, moving away from rote memorization.
- **Higher-Order Thinking Skills:** Assessment should incorporate tasks that require critical thinking, problem-solving, creativity, and communication.
- **New Report Card Design:** Report cards should be redesigned to provide a 360-degree view of students' progress and growth, encompassing both academic and non-academic achievements.

2. Building Capacity:

- **Teacher Training:** Teachers need training on "assessment as learning" and "assessment for learning" to effectively incorporate these approaches into their teaching.
- **Paper Setter and Moderator Training:** Training should be provided for paper setters and moderators on the new assessment patterns and evaluation procedures.
- **Development of Question Banks:** Creating comprehensive question banks for competency-based tests that assess higher-order skills is crucial.

3. Digital Tracking and Data Collection:

- **IT-Based Tracking Systems:** States and UTs should develop IT-based systems to track students' progress and monitor learning outcomes.
- **Data Analysis:** Utilizing data collected through digital tracking systems to identify areas for improvement and tailor teaching and learning strategies.

4. State-Specific Strategies:

- **Tailored Solutions:** NEP 2020 implementation requires addressing specific challenges and leveraging strengths of each state.
- **Collaboration:** Collaboration between national and state-level bodies (like PARAKH, NCERT, SCERTs, CBSE, AICTE and other Boards of Assessments) is essential for effective implementation.

5. Reducing Examination Burden:

- **Improvement Exams:** Compartment exams should be renamed as "Improvement exams" and made lower-stakes to reduce anxiety and focus on continuous learning.
- **Review of Subjects:** CBSE and other boards should review

subjects offered at the secondary and senior secondary levels to align with NEP 2020 goals.

Objective 9: To focus on the NEP 2020 challenges in implementing its assessment and evaluation reforms.

The NEP 2020 faces challenges in implementing its assessment and evaluation reforms in higher education, primarily due to resource constraints, a lack of clear guidelines, and the need for extensive teacher training. Additionally, concerns exist regarding the potential for over-centralization, the need for more autonomy for institutions, and the impact of the policy on student assessment burdens. A comprehensive action plan should address these issues through phased implementation, stakeholder's engagement, and continuous monitoring and evaluation.

1. Implementation and Resource Constraints:

- **Implementation Challenges:** NEP 2020's ambitious goals require significant resources, coordination, and political will for effective implementation, particularly in higher education institutions.
- **Resource Constraints:** Financial limitations hinder institutions' ability to upgrade infrastructure, provide faculty training, and offer diverse learning experiences, all crucial for implementing the policy.
- **Lack of Clear Guidelines:** The policy lacks detailed guidelines on funding mechanisms and the distribution of funds, creating uncertainty for institutions.
- **Digital Divide:** Limited access to technology, reliable internet, and appropriate software tools poses a challenge in delivering holistic assessments, especially in rural and economically disadvantaged areas.

2. Assessment Reforms and Student Burden:

- **New Assessment System:** The policy proposes a new assessment system focusing on holistic student development, but there are concerns about its practical implementation.
- **Assessment Burden on Students:** The NEP might increase the number of exams and assessments per semester, potentially leading to increased bureaucratic load and stress for students.
- **Lack of Clarity on Assessment Reforms:** The policy lacks clear guidelines on how assessment reforms will be implemented, raising concerns about the potential for inconsistencies and unintended consequences.

Plan of action:

- Infrastructure and technology need to be invested in by the educational institutions and authorities, especially in the areas or communities where these resources are inadequate. This can bring about supply of laptops or tablets, maintaining dependable internet access, and establishing comfortable conditions for exams.
- To ensure that the reforms are understood and that there is a clear plan for how they will be integrated, educational authorities and policymakers should engage in communication with the current examination boards and systems. This could bring about change in the structure of

current exams or offering advice on how to adjust to the new assessment methods.

- To explain the justification for the assessment reforms, policymakers and educational institutions should interact with communities, parents, and other stakeholders. They should also be receptive to criticism and ready to make changes that honor social and cultural norms while still achieving NEP 2020's goals.

CONCLUSION

NEP 2020 emphasizes transforming assessment and evaluation in higher education to focus on students learning and development, moving away from traditional rote memorization towards competency-based assessments that test higher-order skills like critical thinking and problem-solving. However, with the advent of the National Education Policy 2020 (NEP 2020), there's a significant paradigm shift towards a more holistic and outcome-based approach for assessment. The new approach advocates for a shift from statement of marks to statement of skills that provide a more holistic representation of students' capabilities encompassing both cognitive and non-cognitive skills essential for personal and professional success.

Assessment and evaluation practices play a pivotal role in shaping the learning journey of students in the dynamic landscape of Higher Education Institutes (HEIs). This study is a qualitative, theoretical research design and objective- wise content analysis is explored to highlight various innovative assessment and evaluation methods. It explains the role of measurement, assessment and evaluation in the education system, focusing on continuous and comprehensive evaluation, inclusive assessments, make to understand various technology-enhanced assessments and emphasize on competency- based assessments such as -PARAKH (Performance Assessment, review and Analysis of Knowledge for holistic development), the Choice-Based Credit System (CBCS) and Grading System, explores the Academic Bank of Credits (ABC) digital platform, and discusses the implementation of multi-dimensional 360-degree assessment and Holistic Progress Card (HPC). National Education Policy (NEP) 2020 presents a pivotal opportunity for Indian education embracing strategies that cater to diverse student needs, such as offering choices in assessment formats, implementing programmatic approaches, and involving students in co-designing assessments that can foster a more inclusive educational environment. Exploration and implementation of these assessment and evaluation reforms are essential to realize the NEP 2020's vision of transforming India's Higher Educational Institution's educational landscape.

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